

### **REMARKS/ARGUMENTS**

Applicant has carefully reviewed and considered the Final Office Action mailed on July 17, 2007, and the references cited therewith.

Claims 1-13, 16, 18, and 19 are amended, claims 14-15 are cancelled, and no claims are added. Claims 25-63 were withdrawn pursuant to a restriction requirement. As a result, Claims 1-13 and 16-63 are now pending in this application.

#### **§ 112 Rejection of the Claims**

Claim 1 was rejected under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement. In particular, the Office Action states “operational information associated with signal routing” as not being disclosed in the application.

Applicant respectfully traverses the Examiner’s reading of the above-quoted limitation, and the 112 rejection as follows.

Support for amended claim 1 can be found in the application as-filed. For example, paragraph 24 states in relevant part:

A determination to direct a transmission null and/or a transmission peak (e.g., a communication beam 214) in a particular direction can be made based on collected or otherwise provided routing information which may include a variety of data associated with the operation of the multi-beam directed signal system 206, wireless routing device, and other devices at other locations or nodes within the wireless network.

Thus, Applicant submits the subject matter contained in the claims, as amended, is adequately described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 112, first paragraph, rejection of claim 1.

§ 103 Rejection of the Claims

Claims 1-24 were rejected under 35 USC § 103(a) as being unpatentable over Periyalar (U.S. Patent No. 6,611,695) in view of Chitrapu (U.S. Publ. No. 2003/0114196).

Applicant does not admit that the Chitrapu application is prior art and reserves the right to swear behind the same at a later date. Nonetheless, Applicant respectfully traverses the 103 rejection as follows.

The present application (Serial No. 10/700,329) was filed on November 3, 2003, and claimed the benefit of a related U.S. Provisional Application Serial No. 60/423,660, entitled "A Wireless Data Packet Communications System," filed on November 4, 2002 (see paragraph 1). Thus the effective filing date of the present application is November 4, 2002.

The Office Action mailed July 17, 2007 cited the above-mentioned Periyalar reference and Chitrapu application in the 103 rejection. The Chitrapu application was published on June 19, 2003, on an application (Serial No. 10/305,821) filed November 27, 2002. Neither of these dates precede the effective filing date of the present application, i.e., November 4, 2002, and thus, do not support the Chitrapu application qualifying as prior art against the present application.

The Chitrapu application claims priority from U.S. provisional application No. 60/334,309, filed Nov. 29, 2001; U.S. provisional application No. 60/334,226, filed Nov. 29, 2001; and U.S. provisional application No. 60/334,369, filed Nov. 29, 2001. As the Examiner is aware, priority only applies to that subject matter in the Chitrapu application which is fully supported by disclosure in at least one of the above-mentioned earlier-filed U.S. provisional applications. However, the Office Action cites to portions of the Chitrapu application without any indication that the cited portions are indeed supported by, and thus entitled to the earlier effective filing date of, the U.S. provisional application(s).

Furthermore, U.S. provisional application No. 60/334,309, filed Nov. 29, 2001, entitled "A Method and System For Geolocation Assisted Beam Forming" names two inventors, Prabhakar R. Chitrapu and Steven Jeffrey Goldberg. However, the cited Chitrapu application (US 2003/0114196 A1) only names one inventor, Prabhakar R. Chitrapu. Thus, the Chitrapu application (US 2003/0114196 A1) should not be entitled to the benefit of an earlier effective filing date for subject matter not invented by Prabhakar R. Chitrapu, i.e., subject matter of the U.S. provisional application which was actually invented by Steven Jeffrey Goldberg. The Office Action does not establish that subject matter relied upon in support of an earlier effective filing date was invented by Prabhakar R. Chitrapu (the inventor of the cited Chitrapu application), rather than by Steven Jeffrey Goldberg. Accordingly, the Office Action does not establish an effective date earlier than the filing date of the Chitrapu application for the subject matter relied upon in the 103 rejection, and thus does not properly establish a *prima facie* case of obviousness.

Even if it is established that the cited Chitrapu application (US 2003/0114196 A1) did have an effective date enabling it to serve as a prior art reference, the Periyalarwar reference in view of the Chitrapu application does not describe, teach or suggest each and every element of the claims, as amended.

In particular, neither the Periyalarwar reference nor the Chitrapu application appear to describe, teach or suggest a Wi-Fi switch, or a multi-beam directed signal system configured for 802.11 specification data packet wireless communication with a 802.11 client computing device. Support for directed wireless communication from a Wi-Fi switch according to the 802.11 standard can be found in paragraphs 0012 – 0015 of the specification, as originally filed. Each of the cited references seem to be generally directed towards wireless telecommunications systems, and more particularly towards cellular telephone systems (see, for example, paragraphs 3 and 7 of the Chitrapu application, and col. 1, lines 16-19, and col. 4, lines 38-52, of the Periyalarwar reference).

Additionally, the Periyalarwar reference, alone or in combination with the Chitrapu application, does not appear to describe, teach or suggest using

complimentary beam-forming. Complimentary beam-forming is discussed in the specification, as originally filed, at paragraphs 0114 – 0117, among others.

Complimentary beam-forming ensures, in part, a minimum transmit power in all directions while preserving the shape of the main communication beam, e.g., transmission peak, such that clients other than an intended client device are able to ascertain whether the communication medium is busy or idle (and available).

Finally, the Periyalwar reference, alone or in combination with the Chitrapu application, does not appear to describe, teach or suggest a multi-beam directed signal system configured to direct a transmission null in a particular direction to maximize power associated with the transmission peak and minimize interference in the particular direction. As set forth generally in paragraph 0024, and in more detail in paragraphs 0105 – 0108, of the specification as originally filed, a transmission null occurs in a transmission pattern when a relatively insignificant amount of energy is transmitted in a particular direction.

Affirmatively directing a transmission null along a particular signal path (for example by assigning a zero weighting factor to a particular vector in a routing table) towards an undesired, possibly interfering, device or object, can achieve a number of benefits (described in the specification). Applicant respectfully submits that the claimed “directing a transmission null” is not described, taught or suggested by the mere absence of a communication beam in a particular direction, nor implied by a discussion of directed communication beams.

For all the reasons set forth above, the Periyalwar reference, alone or in combination with the Chitrapu application, does not describe, teach or suggest each and every element of the claimed invention, as required. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of claims 1-13 and 16-24, as amended.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney at (612) 236-0120 to facilitate prosecution of this matter.

**CERTIFICATE UNDER 37 CFR §1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: **MS AF** Commissioner for Patents, P.O. BOX 1450 Alexandria, VA 22313-1450, on this 17 day of October, 2007.

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